

AMENDMENT TO THE ABSTRACT

Please amend the abstract as follows. A replacement abstract is submitted on a separate sheet in accordance with 37 CFR 1.72.

~~A process is provided to produce a dilute ethylene stream and a dilute propylene stream to be used as feedstocks for producing olefin-based derivatives. Specifically, the dilute ethylene stream is used as a feedstock to produce ethylbenzene, and the dilute propylene stream is used as a feedstock to produce cumene, acrylic acid, propylene oxide and other propylene based derivatives from a cracked gas stream. One process comprises separating the cracked gas stream to produce a C_2^- stream and a C_3^+ stream; hydrogenating the C_2^- stream in a hydrogenation zone to remove a portion of the acetylene to produce the dilute ethylene stream and routing the C_3^+ stream to storage or other process unit. Another process comprises separating a cracked gas stream in a depropanizer zone to form a C_3^- stream and a C_4^+ stream; separating the C_3^- stream in a deethanizer zone to form a C_2^- stream and a C_3 stream; hydrogenating a portion of the acetylene in the C_2^- stream in a hydrogenation zone to produce a dilute ethylene stream; and routing the C_3 stream to storage or other process unit.~~

REPLACEMENT ABSTRACT

Processes are provided to produce a dilute ethylene stream and a dilute propylene stream from a cracked gas stream. One process comprises separating the cracked gas stream to produce a C_2^- stream and a C_3^+ stream; hydrogenating the C_2^- stream in a hydrogenation zone to remove a portion of the acetylene to produce the dilute ethylene stream and routing the C_3^+ stream to storage or other process unit. Another process comprises separating a cracked gas stream in a depropanizer zone to form a C_3^- stream and a C_4^+ stream; separating the C_3^- stream in a deethanizer zone to form a C_2^- stream and a C_3 stream; hydrogenating a portion of the acetylene in the C_2^- stream in a hydrogenation zone to produce a dilute ethylene stream; and routing the C_3 stream to storage or other process unit.